



2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213
T 202.293.7060
F 202.293.7860
www.sughrue.com

FAX

Date August ⁷~~8~~, 2008
To Examiner Sean Motsinger
Of USPTO
Fax 571-273-8300 / 571-270-2237
From Ryan F. Heavener
Subject Agenda for Telephonic Interview
U.S. Application No. 10/684,708
Pages 4 (including cover sheet)

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2100 Pennsylvania Avenue, NW
Washington, DC 20037-3213
T 202.293.7060
F 202.293.7860
www.sughrue.com

Ryan F. Heavener
T 202-663-7405
rheavener@sughrue.com

August 4, 2008

Application No. 10/684,708
Attorney Docket No. Q77911

Re: Agenda for telephonic interview

Dear Mr. Sean Motsinger

Applicants would like to discuss the following in the aforementioned interview:

Rejections under 35 U.S.C. §§ 102 and 103

Claim 1 recites:

An abnormal pattern candidate detection processing method, comprising the steps of:

i) detecting an abnormal pattern candidate, which is embedded in a medical image, in accordance with a medical image signal representing a medical image, and

ii) outputting at least information for specifying the detected abnormal pattern candidate,

wherein the method further comprises the step of calculating a degree of certainty about malignancy, which represents a level of possibility of a pattern being a malignant pattern, with respect to the abnormal pattern candidate, the calculation being made in accordance with an index value representing a feature of the abnormal pattern candidate and in accordance with a correlation between the index value and possibility of a pattern being a malignant pattern, which has been obtained from clinical results, and

the step of outputting at least the information for specifying the detected abnormal pattern candidate is a step of outputting information representing the degree of certainty about malignancy with respect to the abnormal pattern candidate together with the information for specifying the position of the detected abnormal pattern candidate, and

wherein the degree of certainty about malignancy is determined from a single index value, which is obtained using linear combination of a plurality of indices representing a plurality of feature measures of a calculation object region. (emphasis added).



Applicant No. 10/395,285
Attorney Docket No. Q74779

In paragraphs 29-30 (pages 12-13) of the Office Action mailed on April 30, 2008, the Examiner correctly concedes that Takeo fails to teach calculating a degree of certainty about malignancy, which represents a level of possibility of a pattern being a malignant pattern, with respect to the abnormal pattern candidate, the calculation being made in accordance with an index value representing a feature of the abnormal pattern candidate and in accordance with a correlation between the index value and possibility of a pattern being a malignant pattern, which has been obtained from clinical results. Thus, the Examiner asserts that Cothren corrects this deficiency of Takeo. Applicants would like to discuss the rejections in view of amending "clinical results" to "pathological examination results" as described in pages 11 and 65 of the Substitute Specification filed on November 21, 2007.

Cothren fails to teach or suggest the present invention claimed in claims 1 and 7, because Cothren does not use the results of pathological examinations, which are used in the present invention to confirm clinical diagnosis. Cothren teaches, in column 20, lines 60-67, and column 21, lines 1-5, that a value obtained by determining the size of a node or the like is compared with a normal distribution of empirical data, and that the degree of malignancy based on the comparison is obtained in percentage. However, Cothren is silent about the use of pathological data. Further, Table 1, which is given in column 22 of Cothren, shows correspondence between a plurality of reference values and degrees of malignancy that are indicated a "Pathology" at the top of the table. However, according to the descriptions in column 20, lines 60-67, and column 21, lines 1-5, of Cothren, the "Pathology" in Table 1 is not a result of pathological experimentation but exhibits a hypothetical probability that the node is malignant. In contrast in



Applicant No. 10/395,285
Attorney Docket No. Q74779

the present invention, the results of pathological examinations are used to confirm clinical diagnosis, as described in the paragraph bridging pages 11 and 12 of the Substitute Specification.

In addition, Applicants believe that Nishikawa is silent about the use of the results of pathological examination (see Nishikawa, col. 33, lines 13-25).

For the aforementioned reasons, Applicants believe that independent claims 1, 7, 13 and 17 are patentable in view of the proposed amendment which more clearly defines the features of the present invention.

We would appreciate if you could please review the above remarks and contact Ryan Heavener at 202-663-7405 to schedule an interview as requested. Applicants would appreciate conducting the interview as soon as possible.

Thank you for your time and consideration.

A handwritten signature in black ink, appearing to read "Ryan Heavener".

Ryan Heavener (Reg. No. 61,512)